

KHNPDCDRAIsPEm Resource

From: Ciocco, Jeff
Sent: Wednesday, May 18, 2016 1:13 PM
To: apr1400rai@khnp.co.kr; KHNPDCDRAIsPEm Resource; Jung-ho Kim (jhokim082@gmail.com); Andy Jiyong Oh; James Ross
Cc: Budzynski, John; Karas, Rebecca; Umana, Jessica; Williams, Donna; Ward, William
Subject: APR1400 Design Certification Application RAI 487-8609 (05.02.02 - Overpressure Protection)
Attachments: APR1400 DC RAI 487 SRSB 8609.pdf

KHNP,

The attachment contains the subject request for additional information (RAI). This RAI was sent to you in draft form. Your licensing review schedule assumes technically correct and complete responses within 30 days of receipt of RAIs. However, KHNP requests, and we grant, 45 days to respond to this RAI. We may adjust the schedule accordingly.

Please submit your RAI response to the NRC Document Control Desk.

Thank you,

Jeff Ciocco
New Nuclear Reactor Licensing
301.415.6391
jeff.ciocco@nrc.gov



Hearing Identifier: KHNP_APR1400_DCD_RAI_Public
Email Number: 540

Mail Envelope Properties (3396bd98ad914c90ae3abc4de9999506)

Subject: APR1400 Design Certification Application RAI 487-8609 (05.02.02 - Overpressure Protection)
Sent Date: 5/18/2016 1:13:09 PM
Received Date: 5/18/2016 1:13:12 PM
From: Ciocco, Jeff
Created By: Jeff.Ciocco@nrc.gov

Recipients:

"Budzynski, John" <John.Budzynski@nrc.gov>
Tracking Status: None
"Karas, Rebecca" <Rebecca.Karas@nrc.gov>
Tracking Status: None
"Umana, Jessica" <Jessica.Umana@nrc.gov>
Tracking Status: None
"Williams, Donna" <Donna.Williams@nrc.gov>
Tracking Status: None
"Ward, William" <William.Ward@nrc.gov>
Tracking Status: None
"apr1400rai@khnp.co.kr" <apr1400rai@khnp.co.kr>
Tracking Status: None
"KHNPDCDRAIsPEM Resource" <KHNPDCDRAIsPEM.Resource@nrc.gov>
Tracking Status: None
"Jungcho Kim (jhokim082@gmail.com)" <jhokim082@gmail.com>
Tracking Status: None
"Andy Jiyong Oh" <jiyong.oh5@gmail.com>
Tracking Status: None
"James Ross" <james.ross@aecom.com>
Tracking Status: None

Post Office: HQPWMSMRS07.nrc.gov

Files	Size	Date & Time
MESSAGE	608	5/18/2016 1:13:12 PM
APR1400 DC RAI 487 SRSB 8609.pdf		90059
image001.jpg	5040	

Options

Priority: Standard
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REQUEST FOR ADDITIONAL INFORMATION 487-8609

Issue Date: 05/18/2016

Application Title: APR1400 Design Certification Review – 52-046

Operating Company: Korea Hydro & Nuclear Power Co. Ltd.

Docket No. 52-046

Review Section: 05.02.02 - Overpressure Protection

Application Section:

QUESTIONS

05.02.02-7

General Design Criterion (GDC) 15 requires that the reactor coolant system and associated auxiliary, control, and protection systems be designed with sufficient margin to assure that the design conditions of the reactor coolant pressure boundary are not exceeded during any condition of normal operation, including anticipated operational occurrences.

NRC staff issued RAI 233-8244, Question 5.2.2-1 during the review of Section 5.2.2 of the APR1400 Design Control Document (DCD). In Question 5.2.2-1, items b and c, NRC staff questioned the methodology for the analysis of the limiting events where low temperature overpressure protection (LTOP) is utilized. The KHNP response to RAI 233-8244 ([ML15348A083](#)), Question 5.2.2-1, items b and c, did not alleviate NRC staff concerns because:

1. The RAI response did not include a discussion of the evaluation model.
2. The RAI response did not contain information regarding the input parameters used in the analyses.

NRC staff requests that KHNP:

1. Describe the analysis methodology, and any computer codes used to analyze the limiting LTOP event(s).
2. Describe the input parameters and assumptions used in the analysis of the limiting LTOP event(s). In particular, explain why the chosen inputs are suitably conservative.

